BRUHAT BANGALORE MAHANAGARA PALIKE

YELHANKA ZONE ELECTRICAL DIVISION

Office of the Executive Engineer
Electrical Division, Yelahanka Zone
Bruhath Bengaluru Mahanagara Palike

"Schedule-B"

Name of work :-Providing Street Lights and electrical accessories in ward no 8 Kodigehalli.

Sl No	Qty	Description Of Work	Unit	Approved Rates	
				In figures	In words
1	106	LED Street light. Supply of LED Streetlight with pressure die cast aluminum housing body with optimal heat sink for better thermal dissipation. Diffuser with Injection moulded & is made of polycarbonate material with high transmission index, delivering superior light output. Rated life Burning Hrs. 50000 hr. @ Lumen Maintenance of 70%. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains Current should not be greater than 0.1A to 0.7A & Surge Protection- Min 4 KV along with Over voltage/Overload, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with .....W System Power consumption. LED Efficiency>130lm/w at 1W & Fixture Efficiency >80lm/w with nominal CRI 75+. housing with supplier word mark / name shall be engraved / Embossing on the die cast housing / body part. . Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008. Warranty of 5 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED source manufacturer. Suitable for A1/A2 Roads as per IS 1944 Part I & Part II. 90 Watts	Each	31250.00	Rupees Thirty One Thousand Two Hundred and Fifty Only
2	25	LED Street light.Supply of LED Streetlight with pressure die cast aluminum housing body with optimal heat sink for better thermal dissipation. Diffuser with Injection moulded & is made of polycarbonate material with high transmission index, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminare > IK08. Power Factor >0.9 with mains Current should not be greater than 0.1A to 0.7A & Surge Protection- Min 4KV along with Over voltage/Overload, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with .....W System Power consumption. LED Efficiency>130lm/w at 1W & FixtureEfficiency >80lm/w with nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 5 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED source manufacture. Suitable for B1/B2 Roads as per IS 1944 Part I & Part II.LED Streetlight 65watts	Each	18720.00	Rupees Eighteen Thousand Seven Hundred Twenty Only
3	123	Supplying and Fixing of.....mm dia class A GI pipe bracket up to 2 mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 watts fluorescent tube street light fitting of all capacities to GI or CI or rail or RCC pole / wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires. Using 32mm dia G.I.pipe	Each	893.00	Rupees Eight Hundred Ninety Three Only
4	300	Wiring for lighting/power circuit using one of PVC insulated 1100v grade stranded **Aluminium** unsheathed wire single core/multi core cable in open or consealed system of wiring. a)4 sqmm.	Each	7.50	Rupees Seven And Paise Fifty Only

EXECUTIVE ENGINEER-4
KRIDL, BBMP DIVISION
BENGALU[illegible]-560 01[illegible]

Executive Engineer
Electrical Division
Yelahanka Zone BBMP
Byatarayanapura, Bangalore-92

5	100	Fixing halogen/ metal hallide /SVL/IL/LED flood light fittings over existing pole/ wall ceiling including clamps bolts nuts and wiring using sitable capacity wires	Each	176.00	Rupees One Hun Seventy Six Only
6	1	Supplay erection testing & commissioning of Thiristor based single/ Three phase smart street light control and monitoring system Remotely control and and monitorable smart street light system by using web or mobile application .smart control system has hardware ruggedness over field issues like line cross, line short, lighting and any other irregularities in voltage. It has some features like 1.Remote lighting management.2.Precise lighting turnoff.3.Load ballancing.4.Load power regulation.5.Status tracking. It works on the basis of some of these features 1) Main Control Unit (Mother board) : Handles controlling , data handling and other communication process. 2) Communication unit: GSM/GPRS quad bandwith RS232 interface wireless communication unit 3) Gate Driver Unit: Firing angle controllable board for driving the thyristor 4) Switching Thyristor: SCR 110 AMPS dual thyristor modules for switching 5) Embedded Firmware: Firmware to control , handle , process the data and communicate it wirelessly.6) Metal Enclosure : IP66 weather prof metal enclosure.7) Transformers: Customized step down transformers for various purposes.8) Wiring and other device assembly components.	Set	51500.00	Rupees Fifty One Thousand Five Hundred Only
7	1	Supplay and erection of Single phase Thyristor based smart street light control system consisting of following aquipments 1. Precise turn ON & OFF of street lights on pre programmed data 2. 2 x 16 character LCD display unit to display date, status ON Or OFF , turn ON & OFF time, 3. Keypad to set/edit ON & OFF time as per the end user 4. Microcontroller with Real Time Clock and associated hardware 5. 1 No. SCR 162 amps thyristor module for load switching mounted on an extruded alluminium heat sink 6. Thyristor Driver Card: Driver control circuit to switch ON & OFF the Thyristor module 7. Firmware: Firmware to control the hardware and display the required data 8. Power Supply: AC to DC conversion circuit required for the electronic circuitry and driver control card 9. Enclosure is made out of 18 swg CRCA ms sheet of size H480xW310XD200mm with luvers for Heat dissipation IP65 weather proof metal enclosure 10. Wiring & other components like wiring, connectors ,insulators, Alluminium Bus bar and 2 nos of 125 amps single pole MCB for main power Supply control and Manual On & off operation & etc complete.	Set	31860.00	Rupees Thirty One Thousand Eight Hundred Sixty Only
8	60	Open Conduit Systeme: Supplying heavy gauge PVC conditpipe,,,,,,,,,, dia confirming to IS 2509 with suitable size bends,junction boxes, adhesibve paste etc., and fixing using inverted wood plugs in case of RCC ceiling and RCC wall stone structure or plug incase of brick walls and cement plastering damaged portionusing heavy gauge saddles at an interval of 700mm using NF screws.c)32mm dia 2.5mm thick	Mtrs	100.00	Rupees One Hundred Only
9	100	Supplying of 1.1KV grade Aerial Bunched Cable Stranded & Compacted Aluminum Phase Conductor, and Stranded Messenger Conductor with all aluminum Alloy, Phase Conductor is insulated with XLPE Compound, insulated Messenger with specified IS-14255:1995 & confirming to GTP of GROUP-A.2 X 25 + 1 X 25 SQ.MM	Mtrs	143.00	Rupees One Hundred Forty Three Only
10	1000	Supplying and stringing of ACSR Conductor (6/2.59mm Al +1/2.59mm Steel).	Mtrs	30.00	Rupees Thirty Only
11	29	Supplying and Fixing .....including all Hardware's etc. complete as per the standard technical specification of BESCOM. A)1.1 KV Pin Insulator	Nos	44.00	Rupees Forty Four Only
12	10	No. 8 Strain Insulator	Nos	14.00	Rupees Fourteen Only
13	11	Supply and Installation / Fixing / Provision of Pole box with HRC Fuse / MCB provision and suitable connector / terminal for 3 Ph / 1 Ph connections with Loop-In & Loop-Out terminals for 10 Sqmm / 25 Sqmm 3.5 C Al/Ar / Cu/Ar Cable and branch out 2.5 Sqmm 2 core Al/Cu PVC Insulated cable, enclosed in a Thermoplastic, Polystyrene enclosure, which should be shock proof, safe, IP65(Weather Proof), rust proof, dust proof, water proof having Internally Embedded Gasket with provision for cable entry through IP65 Thermoplastic, polyamide glands and/or grommets.200mmx200mmx98mm	Each	2178.00	Rupees Two Thousand One Hundred Seventy Eight Only

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	11	Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts and wiring complete. Protection of Overload and Short circuit with thermal Magnetic/Micro processor release and Earth Fault as per IS-13947. (Icu = Ics) THREE POLE 100Amps25kA.	Each	4044.00	Rupees Four Thousand Forty Four Only
15	70	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes.25 sqmm Long Barrel	Each	20.59	Rupees Twenty And Paise Fifty Nine Only
16	25	Supply and fixing of .....cross arm including all Hardware's complete as per the standard technical specification of BESCOM 2 Pin 45x45x5mm -510mm	Nos	306.00	Rupees Three Hundred Six Only
17	1400	Supplying of 1.1 KV LT UG cable having aluminum conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2CX10Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to GTP of GROUP-A. 4 core 16 sqmm	Mtrs	140.40	Rupees One Hundred Forty And Paise Forty Only
18	1400	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.In existing trench/duct.6 sqmm to 16 sqmm	Mtrs	10.80	Rupees Ten And Paise Eighty Only
19	200	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7) In soil (ordinary)	Mtrs	78.00	Rupees Seventy Eight Only
20	1000	Asphalt cutting	Mtrs	117.00	Rupees One Hundred Seventeen Only
21	2	Supply and fixing of 4pole power contactor with NO/NC contacts on existing wood/panel board using necessary bolts, nuts, washers and wiring etc., complete with AC-3 Rating and as per IS-13947.100-125Amps	Nos	9915.00	Rupees Nine Thousand Nine Hundred Fifteen Only
22	2	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898. 40-63Amps TPN	Nos	1936.00	Rupees One Thousand Nine Hundred Thirty Six Only
23	2	Supplying and fixing of Twin Dial electro mechanical timer (without contactor) using necessary bolts, nuts and washers etc.. Group A, PWD SR 2007-08,	Nos	4200.00	Rupees Four Thousand Two Hundred Only
24	300	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand Copper conductor single core wire in open or concealed system of wiring as per IS-694:1990 & confirming to GTP of GROUP -B.1.5 sqmm	Mtrs	15.90	Rupees Fifteen And Paise Ninety Only
25	10	6 sqmm	Mtrs	53.20	Rupees Fifty Three And Paise Twenty Only

I am prepared to take up the above work at rates quoted in the Schedule 'B'

Contractor

EXECUTIVE ENGINEER-4
KRIDL, BBMP DIVISION
BENGALURU-560 016

EXECUTIVE ENGINEER (ELEC)
BBMP, YELHANKA ZONE